BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAII

In the Matter of the Application of)) HAWAIIAN ELECTRIC COMPANY, INC.,) HAWAII ELECTRIC LIGHT COMPANY, INC.,) MAUI ELECTRIC COMPANY, LIMITED)) For Approval to Establish Electric) Vehicle Pilot Rates for Residential) and Commercial Customers.)	TRANSMITTAL NO. 10-05

DECISION AND ORDER

AND

DISSENTING OPINION OF LESLIE H. KONDO, COMMISSIONER

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAII

In the Matter of the Application of)) HAWAIIAN ELECTRIC COMPANY, INC.,) HAWAII ELECTRIC LIGHT COMPANY, INC.,) MAUI ELECTRIC COMPANY, LIMITED)) For Approval to Establish Electric) Vehicle Pilot Rates for Residential) and Commercial Customers.))	Transmittal No. 10-05

DECISION AND ORDER

By this Decision and Order, the commission approves Transmittal No. 10-05, jointly filed by HAWAIIAN ELECTRIC COMPANY, INC. ("HECO"), HAWAII ELECTRIC LIGHT COMPANY, INC. ("HELCO"), and MAUI ELECTRIC COMPANY, LIMITED ("MECO"), on July 28, 2010, which proposes to establish Electric Vehicle Pilot Rates ("EV Pilot Rates") for each of the electric utility's respective service territories, subject to the reporting requirements noted herein.[1] Unless ordered otherwise by the commission, the EV Pilot Rates shall be in effect for a three-year period, from October 1, 2010 to September 30, 2013.

[1]HECO, HELCO, and MECO are collectively referred to as the Hawaiian Electric Companies or HECO Companies. HECO, HELCO, and MECO served copies of their transmittals upon the DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS, DIVISION OF CONSUMER ADVOCACY ("Consumer Advocate"), an ex officio party to all commission proceedings, pursuant to Hawaii Revised Statutes ("HRS") § 269-51 and Hawaii Administrative Rules § 6-61-62(a).

I.

Background

A.

Transmittal No. 10-05

By its transmittal filed on July 28, 2010, the HECO Companies seek to establish their EV Pilot Rates pursuant to certain terms, including:

1. The EV Pilot Rates are applicable only for the charging of on-road electric vehicles. Such vehicles must: (A) have a minimum battery capacity of four kilowatt-hours ("kWh"); and (B) be capable of operating on public streets, roads, and highways. In addition, the HECO Companies "are preparing for customer enrollment by developing EV Pilot Rates enrollment criteria such as requiring a closed building permit for the EV charging stations, and requiring an updated vehicle registration."[2]

2. Participation will be limited to: (A) 1,000 meters within HECO's service territory; (B) 300 meters within HELCO's service territory; and (3) 300 meters within MECO's service territory, consisting of its Lanai, Maui, and Molokai Divisions. According to the HECO Companies, "[t]he proposed limits are the same as the existing participation limits for the existing residential time-of-use rate option at [HECO], the recently

[2]HECO Companies' response to PUC-IR-107(4).

authorized residential time-of-use rate option at MECO, and the proposed residential time-of-use rate option at HELCO."[3]

3. For each of the service territories, two residential rate options (the residential single meter option or the residential dedicated electric vehicle charging service meter option) and one commercial rate option are proposed.

A. Schedule Residential EV - Residential Single Meter Option: Under this option, the customer elects to have the entire residential load served under the time-of-use electric vehicle charging rate. The proposed charges for Schedule Residential EV will include:

- The monthly customer charge, base fuel energy charge, energy cost adjustment charge, and all surcharges applicable to Schedule R.
- The monthly minimum charge, to the extent applicable.
- The time-of-use periods will consist of three periods, with the following corresponding time-of-use energy charges:

Period	
Priority peak	5:00 pm - 9:00 pm, Monday - Friday
Mid-peak	7:00 am - 5:00 pm, Monday - Friday
	7:00 am - 9:00 pm, Saturday - Sunday
Off-peak	9:00 pm - 7:00 am, Daily

	Charge per kWh
HECO	
Priority peak	14.0414¢
Mid-peak	11.0414¢
Off-peak	2.0000¢
HELCO	
Priority peak	18.3199¢
Mid-peak	15.3199¢
Off-peak	2.0000¢

[3]HECO Companies' response to CA-IR-4a.

MECO - Maui Division

Priority peak	14.4443¢
Mid-peak	11.4443¢
Off-peak	2.0000¢

MECO - Molokai Division

Priority peak	19.8088¢
Mid-peak	16.8088¢
Off-peak	2.0000¢

MECO - Lanai Division

Priority	14.7114¢
Mid-peak	11.7114¢
Off-peak	2.0000¢

According to the HECO Companies:

> The core offering of the proposed electric vehicle charging rates is a low off-peak rate that is the same rate for both residential and commercial options on the same island: the rate is set at two cents above the base fuel energy charge rate (in the residential rate schedule) to encourage off-peak charging while making a contribution to fixed costs from an incremental kWh sale. The base fuel energy charge rate reflects the fuel and purchased energy costs at the levels and proportions assumed in base rates, i.e., when the energy cost adjustment factor is zero . . . .
>
> . . . .
>
> The priority peak rate is set at three cents per kWh above the mid-peak rate. The priority peak rate and mid-peak rate are designed based on the average usage profile for the residential class on each island such that, in conjunction with the off-peak rate, the single meter residential time-of-use bill for energy charges (before any electric vehicle charging) is approximately the same as the existing Schedule R bill for energy charges.
>
> This gives the residential customer an opportunity to charge an electric vehicle at the low off-peak charging rate without, on average, affecting the rest of the residential bill. Customers under this rate option will pay

$1.50 per month more for the customer charge as a contribution towards the cost of the time-of-use meter.

Transmittal No. 10-05, at 6-7; see also HECO Companies' responses to CA-IR-5a, CA-IR-11, and PUC-IR-109(2) (calculation of the proposed charges under Schedule Residential EV).[4]

B. Schedule EV-R - Residential Dedicated Electric Vehicle Charging Service Meter Option: Under this option, the customer elects to have a separate meter installed which will be used exclusively for the purpose of charging electric vehicle batteries. The installation of the separate meter and associated costs will be subject to Tariff Rule 14A, Meter Installations and Miscellaneous Service Equipment on Customer's Premises.

The proposed charges for Schedule EV-R will include:

- The time-of-use metering charge: $1.50 per month.
- The energy cost adjustment charge and all surcharges applicable to Schedule R.
- The minimum charge, to the extent applicable, will be the time-of-use metering charge.
- The time-of-use periods will consist of two periods, with the following corresponding time-of-use energy charges:

Period	
On-peak	7:00 am - 9:00 pm, Monday - Friday
Off-peak	9:00 pm - 7:00 am, Daily
	7:00 am - 9:00 pm, Saturday - Sunday

[4]In response to PUC-IR-107(1), the HECO Companies propose an alternative title, Schedule Residential TOU EV, for the residential single meter option.

	Charge per kWh
HECO	
On-peak	20.6496¢
Off-peak	10.8903¢
HELCO	
On-peak	23.6687¢
Off-peak	9.6132¢
MECO - Maui Division	
On-peak	16.7625¢
Off-peak	6.5937¢
MECO - Molokai Division	
On-peak	22.9611¢
Off-peak	7.3991¢
MECO - Lanai Division	
On-peak	21.5046¢
Off-peak	11.0620¢

According to the HECO Companies: (1) the residential customer charge for a separately metered, dedicated electric vehicle charging service is $1.50 per month, which is the same as the difference between the single-phase customer charge on Schedule R and Schedule TOU-R for single-phase service at HECO; (2) the off-peak rate is set at two cents per kWh above the base fuel energy charge rate for the applicable island, in order to encourage off-peak charging while making a contribution to fixed costs from an incremental kWh sale; and (3) the on-peak rate is a weighted average of the priority peak and mid-peak rates set forth in the residential single meter option.[5]

[5]See also HECO Companies' response to CA-IR-13 (calculation of the time-of-use on-peak energy charges).

Concomitantly, the HECO Companies note:

> At this time, it is the Companies' understanding that ordinances of the Counties of Maui and Hawaii prohibit the installation of second separate meters at residential premises. Therefore, electric utility customers at MECO and HELCO are currently unable to take advantage of the EV-R (separate meter) rate.

HECO Companies' response to CA-IR-8a; see also Transmittal No. 10-05, at 8 n.1 (a second separate meter may not be available to residential customers in all of the HECO Companies' service territories); and HECO Companies' response to PUC-IR-104 (the City and County of Honolulu ordinances specifically allow for the installation of a second meter for electric vehicle charging use, while the County of Maui ordinances allow for the installation of a single meter at residential premises); but see HECO Companies' response to PUC-IR-104 and Attachment D thereto (the County of Hawaii ordinances do not specifically prohibit the installation of a second meter at residential premises, and recent communications with the Building Division indicate that a second meter for the sole purpose of charging an electric vehicle would be allowed under certain provisions).

C. Schedule EV-C - Commercial Dedicated Electric Vehicle Charging Service Meter Option: Under this option:

- Commercial customers must utilize a dedicated electric vehicle charging system meter, with two service options: (1) non-demand service for electric vehicle charging that is "less than or equal to 5,000 kWh per month, and less than or equal to 25 kW," which is the same as commercial Schedule G; or (2) demand service for electric vehicle charging that "exceeds 5,000 kWh per month or in the opinion of the Company, equals or

exceeds 25 kW of demand, three times in a twelve-month period," which is the same as commercial Schedule J.

- The commercial customer will have a separate meter installed which will be used exclusively for the purpose of charging electric vehicle batteries. The time-of-use metering charge will be $5.00 per month. The installation of the separate meter and associated costs will be subject to Tariff Rule 14A, Meter Installations and Miscellaneous Service Equipment on Customer's Premises.

- The energy cost adjustment charge and all surcharges applicable to: (A) Schedule G shall apply for non-demand service; and (B) Schedule J shall apply for demand service.

- The minimum charge, to the extent applicable, will be: (A) the time-of-use metering charge for non-demand service; and (B) the sum of the time-of-use metering charge and the on-peak demand charge for demand service.

- The time-of-use periods will consist of two periods, as follows:

Period	
On-peak	7:00 am - 9:00 pm, Monday - Friday
Off-peak	9:00 pm - 7:00 am, Daily
	7:00 am - 9:00 pm, Saturday - Sunday

- Non-Demand Service: The following time-of-use energy charges will apply for non-demand service:

	Charge per kWh
HECO	
On-peak	18.4205¢
Off-peak	10.8903¢
HELCO	
On-peak	23.3604¢
Off-peak	9.6132¢

MECO - Maui Division

On-peak	16.5656¢
Off-peak	6.5937¢

MECO - Molokai Division

On-peak	25.7929¢
Off-peak	7.3991¢

MECO - Lanai Division

On-peak	22.4188¢
Off-peak	11.0620¢

- Demand Service: The following time-of-use energy charges will apply for demand service:

Charge per kWh

HECO

On-peak	15.5915¢
Off-peak	10.8903¢

Plus

On-peak demand charge $8.50 per kW/per month

HELCO

On-peak	18.4579¢
Off-peak	9.6132¢

Plus

On-peak demand charge $7.00 per kW/per month

MECO - Maui Division

On-peak	14.4165¢
Off-peak	6.5937¢

Plus

On-peak demand charge $5.75 per kW/per month

MECO - Molokai Division

On-peak	21.6204¢
Off-peak	7.3991¢

Plus

On-peak demand charge $4.75 per kW/per month

MECO - Lanai Division

On-peak	22.6089¢
Off-peak	11.0620¢

Plus

On-peak demand charge $5.75 per kW/per month

According to the HECO Companies:

> The core offering of the proposed electric vehicle charging rates is a low off-peak rate that is the same rate for both residential and commercial options on the same island: the rate is set at two cents above the base fuel energy charge . . . to encourage off-peak charging while making a contribution to fixed costs from an incremental kWh sale. The base fuel energy charge rate reflects fuel and purchased energy costs at the levels and proportions assumed in base rates, i.e., when the energy cost adjustment factor is zero . . . .

Transmittal No. 10-05, at 6.

> . . . . The $5.00 per month customer charge for commercial customers for a separately metered, dedicated EV charging service is $5.00 per month, which is one-half of the customer charge under the previous (1990s) commercial EV charging service option.

HECO Companies' response to CA-IR-7a.

> The on-peak energy charge rate for non-demand service is two cents per kWh higher than the Schedule G energy charge rate. The on-peak energy charge rate for demand service is two cents per kWh higher than the first block Schedule J energy charge rate plus a demand charge for on-peak kW (subject to a 25 kW minimum) that is the same as the Schedule J demand charge rate. The two cent per kWh premium for commercial electric vehicle charging on-peak is the same as the current premium for on-peak kWh under the Rider T time-of-use rate option . . . .

Transmittal No. 10-05, at 8 (footnote and text therein omitted).

4. Load profile data recording devices will be installed for a limited number of customers that are selected by

the electric utility to represent a range of total energy usage within the general population of electric vehicle owners. The load profile data recording will not interfere with the provisioning of service under the EV Pilot Rates.

5. Pursuant to the electric vehicle charger load control provision, HECO will have the option of testing the management of electric vehicle charging through the use of a load control relay ("LCR"). Specifically, LCRs will be installed at selected customer locations on Oahu to test the use of such devices with electric vehicle chargers in support of system operational reliability.[6] Utilizing the LCRs, HECO may, "from time to time, interrupt electric service to the electric vehicle charging load when there is insufficient generation to meet a projected peak demand period (at the discretion of the utility), automatically via an under-frequency relay . . . when the utility's system frequency drops to a specified level, or for pilot [program] evaluation purposes."[7]

6. The EV Pilot Rates will remain in effect for a three-year period, from October 1, 2010 to September 30, 2013.

7. With respect to the energy and demand charges reflected in the EV Pilot Rates, the Hawaiian Electric Companies state:

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[6]The electric vehicle charger load control provision does not apply to HELCO or MECO because their service territories do not have the ability to activate LCRs.

[7]HECO's Proposed Schedule Residential EV, at 3 and 5.

> The pilot electric vehicle charging rates proposed herein are based on the energy charge and demand charge levels in currently approved base rates. The Hawaiian Electric Companies request the ability to adjust these electric vehicle charging rates to be consistent with the energy charges and demand charges of final rates that are approved by the Commission in a general rate case during the pilot program period . . . .

Transmittal No. 10-05, at 12 (emphasis added); see also HECO Companies' response to PUC-IR-101 (upon the commission's approval of MECO's new rate design, MECO will submit revised proposed electric vehicle charging rates that align with MECO's newly approved energy and demand charges).

On August 18, 2010, the HECO Companies filed their responses to the commission's information requests, on August 31, 2010, they responded to the Consumer Advocate's information requests, and on September 16, 2010, the utilities responded to the commission's follow-up information requests. Also on September 16, 2010, the Consumer Advocate filed its Statement of Position.

B.

Hawaiian Electric Companies' Position

The Hawaiian Electric Companies, in support of the EV Pilot Rates, state:

1. The EV Pilot Rates are designed to encourage the off-peak charging of electric vehicles. On-peak charging is discouraged. The EV Pilot Rates, moreover, may be used in conjunction with Level 1, Level 2, and Level 3 chargers.

2. The electric vehicle time-of-use energy charges are cost-based because such charges are derived based on the electric utilities' existing rate schedules, which are designed to recover the revenue requirements in each electric utility's most recently approved general rate case. The proposed off-peak rate, which is set at two cents above the base fuel energy charge rate, is an attractively low rate such that residential and commercial customers will be encouraged to charge their electric vehicles during off-peak hours while providing a contribution to fixed costs.

3. The EV Pilot Rates will not be subsidized by other ratepayers who do not opt for the pilot rates. "The revenue from the incremental sales that result from kWh used under the proposed electric vehicle charging rates exceeds the fuel and energy costs related to the kWh used, and therefore make a positive contribution towards fixed costs . . . . Customers who do not participate in the electric vehicle charging rates will not see their schedule rates change as a result of implementation of the proposed electric vehicle charging rates."[8]

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[8]HECO Companies' response to PUC-IR-102; see also HECO Companies' responses to CA-IR-2b (revenues from base rates or from other programs will not be subsidizing the proposed EV Pilot Rates), CA-IR-2c (there will be no bill impact for the EV Pilot Rates for any customers of HECO, HELCO, or MECO, either through base rates or through any approved or pending surcharge, other than the charges incurred by the participants in the EV Pilot Rates), CA-IR-2d (there are no programs that will be cross-subsidizing the EV Pilot Rates), and PUC-IR-107(2) (the increase in usage is incremental kWh, which is not subsidized by other customers on other rates).

4. The data obtained from the load profile recording devices will be used to compare the EV customers' load profiles with the load profiles of other customers. "If, at the end of the Pilot Program, the load data show a potential for a noticeable increase in peak-time demand from EV charging before 9 p.m., or the potential for significant impacts on system planning or operation, a more rigorous sampling and analysis plan for EV rates will be incorporated into the next class load study for each island."[9]

5. For the electric vehicle charger load control provision, HECO will pay for the installation cost of the LCRs, estimated at $300 per unit.[10] The LCRs will be supplied from the existing Residential Direct Load Control ("RDLC") Program inventory, which has already been paid for by residential ratepayers.[11]

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[9]Transmittal No. 10-05, at 10; see also HECO Companies' response to PUC-IR-107(3).

[10]See HECO Companies' response to CA-IR-9a (HECO Companies' calculation of the $300 per unit installation cost).

[11]According to HECO:

> At the end of 2009, the RDLC Program was extended at its existing level (i.e., not allowed to expand) per Commission's order filed on March 8, 2010 in Docket No. 2009-0097. As of that time, the number of LCRs in the RDLC Program inventory was as follows: Cannon Model 5000 - 1,551, and Cannon Model 5200 - 290. The cost of these LCRs was recovered by [HECO] through the [demand-side management] surcharge as an expense of the RDLC Program.

Transmittal No. 10-05, at 11 n.3; see also HECO Companies' response to CA-IR-2g (some of the equipment purchased under the

That said, "the EV Charger Load Control Provision of the proposed Schedule Residential EV is separate from the implementation of the RDLC program in that participants in the EV Rate Pilot may be required to have an LCR installed to interrupt service to the EV chargers and will not receive a monthly incentive payment. In contrast, customers who voluntarily participate in the RDLC Program receive fixed monthly incentive payments when they allow HECO to interrupt their electric resistance water heaters or central air conditioners."[12]

6. "Early identification of electric vehicle locations and implementation of the EV Pilot Rates load control and load profile data recording provisions will help address potential service transformer and distribution circuit overloading and maintain grid stability."[13] "Implementation of the proposed EV Pilot Rates will increase the Companies[']awareness of the location of these EV loads, so that system reliability issues can be addressed in a timely fashion."[14]

7. The EV Pilot Rates will be implemented using existing internal resources. The HECO Companies will not seek the recovery of any incremental costs through a surcharge mechanism to implement the EV Pilot Rates.

RDLC Program will be used to implement the proposed EV Pilot Rates).

[12]HECO Companies' response to PUR-IR-107(3).

[13]HECO Companies' response to CA-IR-14a.

[14]HECO Companies' response to CA-IR-19a.

8. Both residential and commercial customers may combine their participation in the EV Pilot Rates with net energy metering, so long as they meet the applicable criteria for both "programs."

9. The HECO Companies will submit an annual report by March 31st in each of the following year when the pilot rates are in effect, which summarizes the progress and status of the EV Pilot Rates.

10. The three-year pilot period is designed to provide the HECO Companies with sufficient data and opportunity to assess the effectiveness of the electric vehicle charging rates and propose any modifications to the EV Pilot Rates, subject to the commission's approval.

11. With respect to the associated costs incurred and revenues generated from the EV Pilot Rates:

> Revenues from these proposed electric vehicle charging rates are expected to be generated from incremental or new kWh sales. All of the kWh sales under these proposed electric vehicle charging rates are expected to generate a positive contribution towards fixed costs, including any sales during off-peak charging hours. As such, the Hawaiian Electric Companies intend to include all revenues from these proposed electric vehicles charging rates, less revenues for fuel and purchased power expenses, in the calculation of adjusted revenues that are compared with target revenues in the pending Decoupling mechanism, Docket No. 2008-0274. In this manner, all customers will benefit from any kWh sales under these rates.

Transmittal No. 10-05, at 12-13; see also HECO Companies' response to PUC-IR-102.

12. In sum, the EV Pilot Rates are designed to "encourage [the] early adoption of EVs and charge infrastructure to meet the Hawaii Clean Energy Initiative key goal of alternatively fueled transportation, encourage the charging of EV batteries in off-peak periods through discounted time-of-use energy rates, and show that Hawaii, through a combination of government and private sector efforts, is becoming EV ready."[15] "Studies by the Electric Power Research Institute . . . among others indicate that the energy use will be more efficient and greenhouse gas emissions reduced, mile-for-mile by the use of electricity in an EV rather than gasoline in an internal combustion energy vehicle."[16]

13. "Any apparent fraudulent use of the EV charge facilities under the optional EV Pilot Rates tariff that use of separate meter dedicated to the EV load would be treated and investigated by the Companies in a manner consistent with power theft policies, and would be handled as such through existing Companies' processes."[17]

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[15]Transmittal No. 10-05, at 13; see also HECO Companies' responses to CA-IR-1 (the HECO Companies have commenced their "marketing" efforts to disseminate information about the EV Pilot Rates and to foster early adoption of electric transportation, which plays a key role in alternatively fueled transportation as part of the Hawaii Clean Energy Initiative) and CA-IR-16a (the EV Pilot Rates are intended to provide the HECO Companies with operating experience for electric vehicle charging that will help guide future rate design, operational considerations, and customer service offerings).

[16]HECO Companies' response to CA-IR-17a.

[17]HECO Companies' response to CA-IR-18a and PUC-IR-18(2).

C.

Consumer Advocate's Position

The Consumer Advocate, by its Statement of Position, does not object to the commission's approval of the HECO Companies' transmittal, subject to certain reporting requirements. In support of its position, the Consumer Advocate states:

1. The HECO Companies are proposing EV Pilot Rates in order to prepare for the arrival of electric vehicles in the State of Hawaii ("State").

2. "Since the proposed EV Pilot Rates are consistent with existing time-of-use rates and offer a financial incentive to charge electric vehicles during off-peak hours, the Consumer Advocate will not recommend any changes to the proposed rates at this time . . . . At some appropriate point in the future, however, the EV rate design should be revisited to see what revisions should be made to send the correct signals to consumers."[18]

3. If the Counties of Hawaii and Maui confirm that the installation of a second separate meter at a residence is prohibited, "the Companies' tariff, promotional materials, press releases and HECO website should make clear that the separate meter option is not available to MECO and HELCO residential customers."[19]

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[18]Consumer Advocate's Statement of Position, at 6-7.

[19]Consumer Advocate's Statement of Position, at 7. The Consumer Advocate's Statement of Position and the HECO Companies'

4. "The Consumer Advocate believes that the load control provision may pose a problem for EV customers who may not be aware that curtailment might affect the customer's ability to adequately charge an EV battery . . . . The Consumer Advocate believes it will be crucial for the Companies to disseminate information on its website, publications, press releases, etc. with clear warnings about battery charging limitations and curtailment."[20]

5. "The Consumer Advocate is concerned that labor costs to prepare bills for EV Pilot Rate customers may require considerable manpower and resources resulting in cross-subsidization from base rates . . . . The Consumer Advocate firmly believes LCR installation costs, billing costs, as well as any other costs related to the EV Pilot Rates, should not be borne by customers who do not participate in the EV Pilot Rates. Participants of the EV Pilot Rates will have the opportunity to reap substantial fuel savings and should therefore be responsible for any costs to implement and operate the EV Pilot Rates. Thus, the Consumer Advocate recommends that at the termination of this program, the Companies should be required to produce an analysis

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responses to the commission's follow-up information requests were both filed with the commission on September 16, 2010. Thus, the Consumer Advocate did not have the opportunity to review the HECO Companies' response to PUC-IR-104, which states in part that recent communications with the County of Hawaii Building Division indicates that a second meter for the sole purpose of charging an electric vehicle would be allowed under certain provisions.

[20]Consumer Advocate's Statement of Position, at 8-9.

that clearly demonstrates that all costs, direct and indirect, associated with the program were recovered by the EV rates."[21]

6. The impact of the EV program on system reliability is of significant concern. In particular, the concentration of electric vehicles in certain areas may overwhelm local transformers and cause outages in neighborhoods and possibility throughout the system. To alleviate these concerns, the HECO Companies should provide the commission and the Consumer Advocate with certain specified data in order to monitor the impact of the EV Pilot Rates on system reliability.

7. The HECO Companies "must evaluate the effectiveness and costs of the EV Pilot Rates to prevent non-participating customers from subsidizing this program as well as to evaluate whether the proposed rates accomplish the intended objectives, such as to mitigate the adverse impact on reliability by shifting charging times to off-peak periods."[22] The HECO Companies' proposed annual report "should allow the Commission and Consumer Advocate to review the outcomes of the EV Pilot Rates as well as determine system reliability issues, necessary revisions, and when the rates should be offered to customers on a broader scale."[23]

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[21]Consumer Advocate's Statement of Position, at 10.

[22]Consumer Advocate's Statement of Position, at 12-13.

[23]Consumer Advocate's Statement of Position, at 13.

II.

Discussion

All rates, charges, classifications, schedules, rules, and practices made, charged, or observed by a public utility must be just and reasonable and filed with the commission, pursuant to HRS § 269-16(a) and (b).

The underlying purposes of the EV Pilot Rates are to: (1) implement electric vehicle charging rates on a three-year pilot basis; (2) encourage the charging of electric vehicles during off-peak periods, when the demand for energy from consumers is lower; (3) obtain load profile data from a random sampling of electric vehicle participants; and (4) utilize LCRs at selected Oahu locations to test the overall operational reliability of HECO's system when electric vehicle chargers are in-service. The EV Pilot Rates, moreover, are designed to "create a positive electric vehicle . . . customer experience and to help incentivize EV market adoption in the State" of Hawaii.[24] In addition, as represented by the HECO Companies; (1) the EV Pilot Rates are based on the energy charge and demand charge levels from the electric utilities' currently approved base rates; (2) the EV time-of-use energy charges are cost-based; and (3) the EV Pilot Rates will not be subsidized by other ratepayers who do not opt for the pilot rates.

[24]Transmittal No. 10-05, at 2-3.

The commission finds and concludes that the EV Pilot Rates appear just, reasonable, and consistent with the public interest. Accordingly, the commission approves the Hawaiian Electric Companies' Transmittal No. 10-05, to take effect from October 1, 2010, subject to: (1) the inclusion of the specified enrollment criteria, including closed building permits for the electric vehicle charging stations and updated, current vehicle registrations for electric vehicles; (2) the re-naming of the residential single meter option from Schedule Residential EV to Schedule Residential TOU EV, as proposed by the HECO Companies; and (3) the reporting requirements recommended by the Consumer Advocate, as set forth in Section III, below.

III.

Orders

THE COMMISSION ORDERS:

1. The HECO Companies' Transmittal No. 10-05, filed on July 28, 2010, proposing to establish EV Pilot Rates, is approved, effective from October 1, 2010.

2. Unless ordered otherwise by the commission, the EV Pilot Rates shall be in effect for a three-year period, from October 1, 2010 to September 30, 2013. By October 4, 2010, HECO, HELCO, and MECO shall file tariff sheets for the EV Pilot Rates, with the applicable issued, effective, and termination dates, and serve copies upon the Consumer Advocate. The tariff sheets shall incorporate: (A) the inclusion of the specified enrollment criteria, including closed building permits for the

electric vehicle charging stations and updated, current vehicle registrations for electric vehicles; and (B) the re-naming of the residential single meter option from Schedule Residential EV to Schedule Residential TOU EV.

3. To the extent applicable, during the course of the EV Pilot Rates, HECO, HELCO, and MECO shall file updated electric vehicle charging rates consistent with the energy charges and demand charges of final rates that are approved by the commission for any of these electric utilities. Unless ordered otherwise by the commission, the updated electric vehicle charging rates shall take effect following the expiration of the thirty-day notice period.

4. By March 31st in each of the following year when the program is in effect, the HECO Companies shall file an annual report with the commission, with copies served on the Consumer Advocate, which summarizes the progress and status of the EV Pilot Rates. The first report shall be due by March 31, 2011.

5. Consistent with the Consumer Advocate's recommendations, the annual report shall include the following information:

A. Results of the database for each service territory tracking the EV Pilot Rate customer information, including the locations of the charging equipment.

B. Service interruption reports caused by electric vehicle usage. The reports should identify the geographic areas which experienced the interruptions, the duration of each

interruption, and the length of time required to correction each interruption.

C. A schedule which details the service upgrades and costs caused by the electric vehicle charging load and distribution circuit infrastructure.

D. Total revenues from the EV Pilot Rates collected by customer class and rate option.

E. A breakdown of the electric vehicle costs incurred, by customer class and service territory, including the impact on labor costs to manually process electric vehicles.

F. Research results from the Electric Power Research Institute, based on the HECO Companies' load profile data.

G. Information on attempted fraudulent use of electric vehicle charge facilities by customers attempting to charge "other proximate load" on electric vehicle meters.

H. Customer complaints related to electric vehicle usage by service territory.

I. Time-line by customer class showing the actual required time to install an electric vehicle meter.

6. HECO, HELCO, and MECO shall clearly inform potential subscribers to the EV Pilot Rates in writing about the potential benefits and disadvantages of subscribing to time-of-use rates.

7. The commission reserves the right to review, modify, and terminate the EV Pilot Rates at any time, consistent with the public interest.

8. The failure to comply with any of the requirements noted in Ordering Paragraphs Nos. 2 to 6, above, may constitute cause to void this Decision and Order, and may result in further regulatory action as authorized by State law.

DONE at Honolulu, Hawaii SEP 30 2010.

PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

By _____
Carlito P. Caliboso, Chairman

By _____
John E. Cole, Commissioner

APPROVED AS TO FORM:

_____
Michael Azama
Commission Counsel

Transmittal No. 10-05.laa

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAII

In the Matter of the Application of)	
)	
HAWAIIAN ELECTRIC COMPANY, INC.,)	Transmittal No. 10-05
HAWAII ELECTRIC LIGHT COMPANY, INC.,)	
MAUI ELECTRIC COMPANY, LIMITED)	
)	
For Approval to Establish Electric)	
Vehicle Pilot Rates for Residential)	
and Commercial Customers.)	
)	

DISSENTING OPINION OF LESLIE H. KONDO, COMMISSIONER

I respectfully dissent. I would reject Hawaiian Electric Company, Inc. ("HECO"), Maui Electric Company, Limited ("MECO"), and Hawaii Electric Light Company, Inc.'s ("HELCO") (collectively, the "HECO Companies") joint request to establish Electric Vehicle Pilot Rates ("EV Pilot Rates") for their respective service territories.

In my view, it is not in the public interest -- and, thus, not just and reasonable -- for the HECO Companies to incentivize electric vehicle ("EV") market adoption in the State through special EV electric rates that are more than 50% lower than the current residential rate.[1] The State of Hawaii has an established rebate program, under which EV buyers are eligible

[1] Under the EV Pilot Rates, a MECO residential customer will pay a base rate of $0.65937 per kWh to charge his EV. The same residential customer currently pays $0.134231 per kWh. See Effective Rate Summaries for September 1, 2010. HECO and HELCO residential customers will pay base rates of $0.108903 per kWh and $0.96132 per kWh, respectively, to charge their EV as compared to their current base rate of $0.171896 per kWh and $0.191370 per kWh, respectively. See id.

for a $4,500 rebate on the purchase of an EV and a $500 rebate on a home EV charging station.[2] The EV Pilot Rates seek to incentivize the same customers, to take the same action as the State's rebate program. Rather than duplicating the State's efforts, in my view, any incentive program by the HECO Companies is more properly and effectively directed to accelerating the development of renewable energy technologies.

Even if the State did not already offer a substantial financial incentive to encourage EV market adoption, given the anticipated popularity of EVs by Hawaii motorists, the proposed EV Pilot Rates are still not in the public interest.[3] Less than three months after Nissan announced that Hawaii will be one of the first markets where its Leaf electric vehicle will be sold, about 1,000 Hawaii residents had already expressed an interest in buying the Leaf and about 250 of those had put down a deposit for the car.[4]

This initial enthusiasm for the Leaf was clearly not premised on an expectation of a special electric rate for EVs. Stated differently, in my opinion, the customers who will likely be the first group of Leaf owners, i.e., the "early adopters," expected to pay the current residential rate for the electricity

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[2] See http://hawaii.gov/dbedt/info/energy/evrebatesgrants. In addition, there is a $7,500 per vehicle federal income tax credit for the purchase of a new EV.

[3] See, e.g., Nissan's Leaf Supply Will Meet Isle Orders, Star Advertiser, September 1, 2010; Rebates, Tax Credit Sweeten Electric Car Deals, Star Advertiser, August 21, 2010; Electric Car Blowing In To Isles, Star Advertiser, July 20, 2010.

[4] Electric Car Blowing In To Isles, Star Advertiser, July 20, 2010.

used to charge their EVs and with that understanding, purchased an EV vehicle. "The fact that there is a waiting list means that you don't need an incentive. . . . It just doesn't make a lot of sense."[5] In my view, those comments by Lowell Kalapa, president of the nonprofit Tax Foundation of Hawaii, about the State's rebate program are equally, if not more, applicable to the EV Pilot Rates.

I support the State's efforts to reduce its dependency on fossil fuels and understand that, to achieve the State's goal of 70% clean energy by 2030, the State must reduce the amount of gasoline and diesel fuel used in the transportation sector. However, the HECO Companies are not and should not be responsible for transforming the transportation industry. In my opinion, that responsibility lies with the Legislature and the State energy office, both of which are much better equipped to consider the appropriateness of such incentives, in the context of the much larger picture of the State's policies and goals. The HECO Companies are responsible for reducing their use of petroleum-based fuels to generate electricity. That goal alone, as HECO has noted on numerous occasions, will be a substantial challenge. Accordingly, it is my position that, through the EV Pilot Rates, the HECO Companies are attempting to address an issue that is well-outside of their obligation as regulated public utilities

[5] Rebates, Tax Credit Sweeten Electric Car Deals, Star Advertiser, August 21, 2010.

and, therefore, the special rates are not in the public interest.[6]

Lastly, I disagree with the HECO Companies' representation that the EV Pilot Rates, which as noted above are more than 50% less than the current residential rate, will not be subsidized by customers who do not own an EV. Using HELCO's proposed residential EV rate as an example, on its face, the EV base rate of $.096132 per kWh does not appear to be covering the EV customer's fair share of the fixed and embedded costs, especially when compared to the current residential base rate of $19.1370 per kWh.

Moreover, under the revenue decoupling mechanism as approved by the commission, the lower EV rate will absolutely result in all other customers paying more for the energy that they use. Under revenue decoupling, the utility is guaranteed to recover its "target revenues." If the utility's actual revenues are higher than the target revenues, the difference will be returned to customers through an adjustment on their bills. Similarly, if the actual revenues are lower than the target revenues, customers will make up that difference, i.e., pay more, through the same bill adjustment.

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[6] I am also concerned that, by creating lower electricity rates to incentivize the adoption of EVs, the HECO Companies are at the same time creating an opportunity for increased electricity sales. To me, there is a real conflict: under the guise of the State energy goals of reducing fossil fuel consumption, the HECO Companies appear to be creating an incentive to boost their earnings. In my view, the commission should not allow the HECO Companies to be in such a position where their motives and intentions relating to programs intended to help achieve the State's energy goals can be so questioned.

Using HELCO as the example, the utility will recover $0.095238 less per kWh sold under the EV Pilot Rates. That means, where HELCO's actual revenues are less than the target revenues, that difference would have been less (and therefore the additional amount that HELCO customers must pay to cover that difference would have been less) if the EV load was charged at the current residential base rate (i.e., $0.095238 per kWh more than the lower EV rate). Likewise, where HELCO's revenues are higher than the target revenues, that difference would have been greater (and therefore the additional amount that HELCO customers would receive from HELCO would have been greater) if the EV load was charged at the current residential base rate. Based on the record, in my view, such "subsidization" is unwarranted and, therefore, is neither just nor reasonable.[7]

DONE at Honolulu, Hawaii SEP 30 2010.

PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

By _____
Leslie H. Kondo, Commissioner

[7] I recognize that the HECO Companies have articulated other bases to support their request for the EV Pilot Rates. I, however, do not find those other reasons compelling. In my opinion, the HECO Companies could obtain much of the same data about any impacts caused by EVs and seek to control the EV load without the need for the EV Pilot Rates. For instance, HECO currently has an approved Residential Time-Of-Use Service, Schedule TOU-R, that is very similar to the EV Pilot Rates. It is my understanding that very few residential customers have opted to participate in Schedule TOU-R. I see no reason that HECO could not encourage EV owners to opt for that service and obtain the identical data.

CERTIFICATE OF SERVICE

The foregoing order was served on the date of filing by mail, postage prepaid, and properly addressed to the following parties:

DEAN K. NISHINA
EXECUTIVE DIRECTOR
DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS
DIVISION OF CONSUMER ADVOCACY
P. O. Box 541
Honolulu, HI 96809

DEAN K. MATSUURA
MANAGER, REGULATORY AFFAIRS
HAWAIIAN ELECTRIC COMPANY, INC.
P. O. Box 2750
Honolulu, HI 96840